Primary Physical Education: A memetic perspective

Abstract

Physical Education is widespread across the world yet despite its cultural variation it remains remarkably similar. The ability of the subject to replicate its practices makes it a potential site for exploration from a memetic perspective. The purpose of this paper is to examine documentary evidence such as research papers, policy documents and inspection reports and offer for consideration potential memes that are at work within the memeplex of UK primary school Physical Education. Four proposals are offered as potential memes; 'sport as techniques', 'anyone can teach it', 'busy, happy and good' and 'nowhere important'. It is concluded that the current environment in primary schooling within the UK serves to strengthen the proposed four primary Physical Education memes by reaffirming current practices. Moving beyond these memes requires significant rethinking about what constitutes primary Physical Education.

Key Words: Primary, Physical Education, Memes, Cultural Transmission

Introduction

Physical Education (PE) continues to be a widespread global school subject (Pühse and Gerber, 2005) and whilst there is cultural variation across many countries there are significant similarities about the subject (Hardman and Marshall, 2009; Quennerstedt, 2013). Kirk (2010) has indicated that globally, the idea of PE has remained relatively stable for the last half a century. Furthermore, within the institutional practices of the subject, cycles or reproduction pertaining to aspects such as curriculum and pedagogy have proven to be enduring and surprisingly resistant to change (Capel, 2007; Griggs and Ward, 2012; Tsangaridou, 2006; Jones and Green, 2015).

Many studies have considered the purpose and 'state' of PE across many countries (Annerstedt, 2008: Bailey, et al., 2009; Hardman and Marshall, 2005; Pühse and Gerber, 2005) and although sociocultural understandings of the subject are growing in scope (Quennerstedt and Larsson, 2015) they have historically focussed upon the reproduction of

social constructs such as inequalities in gender, ethnicity and access to resources (Azzarito and Solomon, 2005; Arara and Rigbib, 2009; Amade-Escot, Elandoulsi and Verscheure, 2015). According to Tinning (2012, p.16) few "have considered Physical Education specifically as a cultural practice and its survival from the perspective of cultural transmission". At the primary level, Griggs (2012a; 2007) has provided recent insights into the state of primary PE and has offered some explanation of its cultural evolution (Griggs, 2012b). The purpose of this paper is to build upon the suggestion offered by Tinning (2012) that insights can be found by examining PE from a memetic perspective. In doing so it aims to reveal what key ideas pervade, maintain and shape UK primary PE practice, which will point towards possible action that might support future evolution of the subject. Before conducting such an analysis a brief explanation of memetics is offered, which is followed by an overview of the method employed in our analysis. Potential memes that reproduce the memeplex of primary PE are then proposed followed by a discussion of the significance of these findings.

Conceptualising a meme

"When you imitate someone else, something else is passed on. This 'something' can be passed on again, and again, and so take on a life of its own. We might call this an idea, an instruction, a behaviour, a piece of information [or a] meme" (Blackmore 1999, p. 4). The concept of a meme was first proposed by Richard Dawkins in his book *The Selfish Gene* (1976) as an identifiable unit of cultural transmission. Conceptually, a meme is analogous to a gene in its ability to successfully replicate itself, with the 'fittest' memes surviving within a particular culture. Examples might include the idea that knowledge is a store of information in the brain, that competition is a universally positive moral educator or that participation in PE will increase the chance of being a healthy, physically active adult. Memes are embodied

ideas within actions and artefacts which record the action of our life narratives (Czarnaiwska, 2004). It is within culturally specific narratives that evidence for memes within a field might most reliably be found (Gill, 2012). Tinning (2012) applies a memetic perspective to a cultural narrative of PE, considering why and how certain ideas about the subject develop and spread. More specifically, he considers how over time some become dominant and others diminish.

Adopting such an approach is not without risk. Critics of memetics indicate a lack of evidence exists for the existence of a meme (Richerson and Boyd, 2005; Wimsatt, 1999) rendering it "incapable of bearing the theoretical weight that is placed upon it" (McGrath 2005, p. 121). Indeed, a decade on from the publication of the *Meme Machine* (1999), Blackmore (2010) shares many such critical views, indicating that gene-meme analogies must be treated with great care, using them where applicable to explore possibilities as to how memes may work and to support our theoretical ideas of cultural phenomena. It is within such an understanding that this paper examines primary PE by employing Tinning's (2012) suggestion to view PE as a cultural practice, shaped and maintained through a collection ideas or memes. Accordingly, the subject can be considered as a "memeplex or meme complex" (Tinning 2012, 119), a "collection of mutually supporting memes, which tend to replicate together" (Heylighen and Chielens 2009, p. 3205). An example might include the idea that PE makes pupils healthy, the curriculum which is then developed, the assessment activities which are then adopted, the preferred pedagogy which follows and the pupil behaviour that results.

In this paper four meme-centred criteria proposed by Heylighen and Chielens (2009) were employed as a framework in order to identify and analyse the pervading ideas reflected

within the analysed data relating to primary PE; 'self-justification' identifies mutually supportive components of the meme, 'self-reinforcement' focuses attention upon the repetition and thus retention of the meme, 'intolerance' enables consideration of how the meme may obtain a stable position through the degree to which it excludes other memes from being adopted, and 'poselytism' identifies how a meme urges its host to spread. Google and Google Scholar searches were utilised to develop the data set for the analysis. This approach employed the terms; 'Primary Physical Education' and 'Elementary Physical Education' followed by associated terms; 'knowledge', 'learning', 'curriculum', 'teaching', 'pedagogy', 'policy', 'practice', 'experience', 'facilities' and 'contexts'. From these searches 276 journal articles, books and policy documents were selected as being related to the practice of primary PE. Whilst these were international in nature, written data specific to the UK and more specifically England was also identified. This was completed to provide a broad to a specific view of the prevalence of particular ideas relating to primary PE. The written data were analysed involving a process of reading, summarising and categorising using a system of open coding (Spencer, et al., 2014). By recognising repetitions, similarities and differences these were reduced further into broad categories of prevailing ideas (Bernard and Ryan, 2010). Initial categories started with sorting data into core topics such as; teachers and training, governance/policy and resourcing, curricula ideals, teaching realities. A matrix was then employed to consider lines of relation within and between these categories from which key ideas about what constitutes primary PE began to emerge. The significance of these ideas and the relations which defined them was then analysed in using to the four meme-centred criteria in order to test their structure and function. Following this process of analysis, four memes were eventually identified as having a significant role in the reproduction of primary PE; 'sport as techniques', 'anyone can teach it', 'busy, happy and good' and 'nowhere important'. In identifying the memes, they are brought to the foreground,

but should not be seen as separate from each other because they exist within the memeplex. However, our analysis of their structure suggests that if one were to be removed the others would still stand on their own and continue in their role of reproducing the memeplex of primary PE.

Sport as techniques

A meme which plays a key role in shaping the practices and subject material that define PE is the idea that the subject is primarily concerned with the teaching of sport techniques. According to Kirk (2010) what teachers do with their chosen subject matter has become an enduring and uniting feature of PE; this indicates the existence of an implicit agreement amongst school practitioners to construct a subject landscape dominated by a 'sporting model' (Capel 2007, 494). Within this landscape, practice amounts to the repetitive learning of techniques within core curricula of sports that are dominated by traditional games. Competence to participate in these sports has been synthesised into the need to acquire Fundamental Movement Skills. Early mastery of these skills is increasingly becoming a core discourse within primary PE (DfE, 2013; Jefferson-Buchanan, 2016). What results is a hierarchical relation where access to authentic participation requires these 'fundamentals' to be mastered first (DfE, 2013). In their journey through the school system, pupils face regurgitated subject material in PE lessons, focused upon the performance of skills and more often than not abstracted from their sport contexts (Kirk, 2010). As a result, exploration and learning is severely restricted by limited curricula blocks, short lessons and teacher directed learning (Jones and Green, 2015). The direction of action for this practice is to engender pupils' love of sport and physical activity with the view of preparing them with the skills for an active adult life (Green, 2012; Ward, 2012). According to Evans (2012) such ideas merely guarantee success of the physically able and the focus on preparation for adulthood shifts

pupils' concerns in favour of those of the subject matter of sport performance (Green, 2014; Kirk, 2010). For primary school pupils this long-term goal is very distant indeed. In effect, rather than 'being with' pupils in their knowledge production, such goals 'leap-in' and 'leap-ahead' for pupils by placing the subject matter of techniques and skills outside of their immediate experiences of the activities (Quay, 2014). In doing so, Quay (2014) argues pupils' own care for their development is removed, which ironically also removes the necessary conditions needed for pupils to ready themselves for this distant future.

Kirk (2010) conceptualises this form of movement culture as 'PE as sport techniques' which has become defined by the absence of a secure home of a defined body of knowledge for the subject. PE differs significantly from other curriculum subjects in that it retreats to the 'theoretical treatments' of sports science (Morgan, 2007; p.98). As a consequence, subject matter becomes conflated with sport and fragmented into scientifically defined components such as motor learning, physiological training and psychological motivation. This techno-scientific approach to PE (Cameron, et al., 2016) filters down to the primary level and influences curricula, Continuous Professional Development (CPD) and those subcontracted to deliver PE (Ward, 2012). These approaches abstract sports performance from the more elaborate sociocultural contexts within which humans participate and create movement culture, which comprise a variety of forms and purposes (Crum, 1993; Larsson and Quennerstedt, 2012; Thorburn and MacAllister, 2013). Such ideas are not surprising, given the difficulties that exist in defining the 'what-aspects' of the subject (Nyberg and Larsson, 2014) and heightens its exposure to various movement ideologies; for example, those which considered the subject a useful site for the development of 'fundamental movement' competences (Stodden et al., 2008), or as a place to exercise for health (Papastergiou, 2009). These approaches mirror the scientific disciplines, such as psychology and physiology that

pervade ideas as to what constitutes primary PE and support easy quantification and measurement of what has been acquired.

Government policy continues to view PE from this perspective defining it as a site for the achievement of instrumental health and sport outcomes (Lavin, Mackinney, Swindlehurst, 2013; DfE, 2014). Paul (1996) argues the subject has suffered from a 'grandfather clock syndrome' in which ideas of its 'what-aspects' have swung from one extreme to another, the pendulum never stopping in the middle or the same place for very long. For example, in the early twentieth century 'Schools' of gymnastics vied for dominance within PE and featured various competing pedagogical systems which embodied particular philosophies of corporeal discourse. According to Kirk (2010) a period of transition between the 1930s and 1950s was marked by a change from mass participation in exacting techniques, to a more free form of physical culture. This was based around notions of education of the whole child through PE, where traditional sports offered the possibility of social and moral education as well as physical training of the body (Whitehead, 2013). However, the corporeal discourses of learning skills to play traditional sports which have resulted remain resilient and ironically less relevant to movement cultures outside of the school gates (Crum, 1993). Crum (1993) argues that corporeal power transitions in a similar way to utilitarian relationships between the school system and changing workforce demands, created by an evolving industrial economy. As post-industrial global economies evolve, so too does the complex landscape of relationships between people and institutions. Whilst participation in traditional sports continues, new types of movement culture emerge which are more diverse in their purposes and outcomes, such as 'alternative' or 'lifestyle' sports (Wheaton and Beal, 2003). Thus, primary PE remains locked within an outmoded form of corporeal discourse which does not match evolutions in wider movement culture.

Whilst iterations of national primary PE curricula have attempted to alter this landscape, little has actually changed in both curricula form and pedagogical practice (Curtner-Smith, 1999; Morgan and Bourke, 2008; Tsangaridou, 2014; Jess, McEvilly and Carse, 2016). In the UK exploring subject material wider than the performance of techniques was an aspiration of the prior iteration of the National Curriculum for Primary Physical Education (NCPPE) (QCA, 1999). This was conceptualised through strands of learning which encapsulated understanding of health and fitness, tactics and composition, in addition to using self and peer evaluation to improve. Despite the existence of this curricula guidance, successive subject inspections have drawn attention to the continued overemphasis on teaching techniques (OFSTED, 2002; 2005; 2009; 2014) and for example, weaknesses in pupils' ability to 'select and apply appropriate skills such as putting passing skills into action in game play' (OFSTED, 2009, p.9). Despite these concerns this curriculum framework has been abandoned by the latest iteration of the NCPPE, which requires pupils in English schools to master fundamental movement skills and competence in competitive games with no guidance as to how this may be achieved (DfE, 2014).

This idea of primary PE has been reinforced through government policies, such as the PE Sport and Young People (PESSYP) strategy and the School Games Organisers. These have provided top-down funding streams which have filtered through from control by the secondary sector bringing beliefs that the subject will tackle childhood obesity and build an elite system of Olympians; all based upon the footings of primary PE lessons (DfES/DCMS, 2003; Griggs and Ward, 2013; DCMS/DfES, 2014; DfE, 2014). Riding on the back of notions of subject specialism, such conflated ideas of PE and sport have served to reinforce the 'sportification' of primary PE curricula (Flintoff, Foster and Wystawnoha, 2011; Collinet,

et al., 2013; Jones and Green, 2015). This is a process compounded by teacher's own socialisation within sport (Curtner-Smith, Hastie and Kinchin, 2008; Andrew and Richard, 2015) and reinforced by 'quick fixes' to limited professional training and CPD (Harris, Cale, and Musson, 2012; Jess and McEvilly, 2015; Jess, McEvilly and Carse, 2016). Despite the more direct provision of the PE Pupil Premium for PE (PPfPE) the legacy of such ideas would suggest that this funding will support the status quo. Indeed, OFSTED (2014), the government body responsible for inspecting the subject in English schools, report that PPFPE has been mainly used to employ sports coaches at the expense of the strategic development of teachers' CPD. These ideas continue to compartmentalise subject matter into sporting activities and reduce conception of learning in PE to quantifiable exercise through skill development (AfPE, 2016; OFSTED, 2013, Griggs, 2016).

It is not unexpected then that, as Evans (2012; p.11) argues, 'Physical Educationalists continue to feel vulnerable, under pressure for failing to deliver what they simply cannot achieve (e.g. mass fitness or slender bodies, or a socially pliable child)'. He concludes that within such a culture successful teachers and pupils are those that 'speak the language of performativity' but are able to meet these unrealistic demands (p.11). The practice of teaching pupils to perform sport techniques to play games fits neatly into school timetables, where hour long lessons leave little time for exploration, reflection and discussion (Kirk, 2010). In this context, PE competes with more serious educational concerns in Numeracy and Literacy upon which pupil performance in national tests has professional consequences (Jones and Green, 2015). By seeking to demonstrate its value to pupils' fitness and competency, stakeholders are pacified into believing that quality educational experiences are being provided and national policy is being met (Evans, 2012).

According to some writers, overcoming the resultant practice stemming from the memeplex 'PE as sport techniques' resides in practitioners adopting the use of instructional models such as Co-operative Education, Tactical Games Models and Sport Education (cf. Kirk, 2010).These provide a guide to teachers, bringing into close alignment learning objectives, teaching strategies and subject material in order to foster more child-centred learning and invoke learning processes akin to situated perspectives of learning (Dyson, Griffin, and Hastie, 2004). In doing so, they redirect attention towards educational discourses whilst still encompassing those of health and sport by increasing physical activity levels, pupil engagement, motivation and enjoyment of PE lessons (cf. Forrest, Webb and Pearson, 2006). However, operationalising these models demands considerable pedagogical expertise and subject knowledge (Ward and Griggs, 2012; Harvey, Cushion, and Sammon, 2014). Placed in a primary school context, this becomes very problematic when non-specialist teachers are required to be experts in twelve curriculum subjects. Developing sufficient expertise by engaging in the complex process of learning to operate these instructional models becomes a very distant solution. The demands created by teaching a broad curriculum require primary teachers to make pragmatic decisions in relation to prioritising their subject expertise. In the UK for example, Numeracy, Literacy and Science are a particular focus given that pupils' performances in tests are used as a means to determine school performance (Rainer, et al., 2012).

In summary, this meme has become self-justifying through the conflation of ideas of PE and competitive sport, reinforced by the absence of a defined body of knowledge, within which the subject can reside. The subject thus borrows from the disciplines of sports science that slice the subject into reductionist understandings of sport such as motor learning, physical training and motivation. The permeation of these ideas in primary PE has been facilitated

through government strategies and funding streams, which have matched teachers' own socialisation within these conflated ideas. The meme is intolerant to more nuanced understandings of subject matter in its rejection of national curricula which have aimed to widen conceptions of knowledge. Traditional competitive sport thus continues to provide curricula structures, within which pupil performativity is easily quantifiable into the amount of time pupils are actively learning fundamental movement skills. These beliefs are spread through 'quick fix' CPD and government policy that define the subject through participation in competitive sport. The retreat of the English NCPE to simply reflect current practice is testament to the strength of this meme. It also mirrors recent pragmatic solutions to which policy makers have turned, in order to solve the consequences of crowded primary school curricula and the considerable workload created through its delivery. This leads to the next meme for consideration; 'anyone can teach it'.

Anyone can teach it

In acknowledgment of the significant workload demanded by delivering a broad range of subjects, a 'National Agreement' (DfES, 2003) was initiated by the DfE in the UK to remodel and broaden the workforce of all schools (Gunter, 2007). This policy has provided teachers with a statutory entitlement for 10 per cent away from timetabled teaching commitments, to permit planning, preparation and assessment (PPA). Meagre funds have been provided to support the latter and primary school headteachers have had to consider the low cost solution that 'Adults other than teachers' (AOTTs) provide. The idea of PE as 'sport techniques', has helped legitimised the creation of PPA time and a legacy of lesson delivery through Higher Level Teaching Assistants (HLTAs) and external delivery agents such as sport coaches (Lavin, et al., 2008; Griggs, 2010; Blair and Capel, 2011; Smith, 2013). This inexpensive and

convenient staffing solution has been continued through the release of the £9000 PE pupil premium (OFSTED, 2014; Griggs, 2016).

The idea that 'anyone can teach' PE is also legitimated by the belief that practical subjects do not represent serious educational activity and thus their peripheral curricula location is justified (Peters, 1996). Expertise in PE, Art and Music often manifests itself through skilful performance of the subject and it is this practical dimension which can override perceptions of the type of cognitive work completed behind the scenes of the performance (Parry, 1998). The very specialised, skilful and physical nature of such performativity becomes confused with ideas about knowledge of subject matter and the competence to teach (Morgan and Hansen, 2008; Webster, 2011; Ward, 2012). Subcontracting delivery to expert performers, rather than teachers, is thus, afforded greater legitimacy (Lavin et al. 2008; Evans and Davies, 2015; Jones and Green, 2015) and its practice in English schools is widespread (Griggs, 2016; OFSTED, 2014). Rather than demonstrating broader educational understanding and associated subject knowledge, sport specific expertise has become the main qualification to teach PE (Blair and Capel, 2011). Primary school teachers often place misconceived value upon the narrow sports-specific knowledge exhibited by sport coaches and as a result have willingly relinquished their PE lessons to these AOTTs (Ward, 2012; Jones and Green, 2015). While it is legitimate to entrust PE to sports coaches, whose training may only equate to a Level 1 qualification, accountants or journalists are kept well clear of Numeracy and Literacy (Griggs, 2010; Ward, 2012; Smith, 2013; Jones and Green, 2015). Such delineation between important and less serious subjects has been a traditional feature of school curricula (Rainer et al. 2012). As a consequence, PE has become defined by schools as a tangible opportunity to advertise additional curricula resourcing, menus of opportunities to play different sports

and to demonstrate instrumental concern for pupils' health. PE thus becomes wrapped in the schools' claim to provide a 'rounded' experience for their pupils (Kirk, 1992).

Pupil performance in formal tests and examinations within traditional forms of knowledge, have matched subject priorities within teacher training courses. The continually changing landscape of teacher training has seen the overall erosion of time made available for teachers to develop subject knowledge and pedagogical expertise (Clay, 1999; Warburton, 2001; Caldecott et al. 2006). Subjects with educational currency; numeracy, literacy and science, have come to dominate teacher education courses and peripheral subjects such as PE have seen their time drastically reduced in some cases to as little as six hours (Fletcher and Kosnik, 2016; Harris, Cale and Musson, 2012; Morgan and Bourke, 2005; 2008; Rainer, et al., 2012; Tsangaridou, 2014). Such a situation is reflective of a complicit agreement that PE does not therefore require much subject knowledge and does not need to be taught to such rigorous standards as Numeracy and Literacy. Moreover, off-putting and limited personal experiences of the subject are manifested in very low confidence and perceived self-competence of primary teachers to deliver PE (DeCorby et al. 2005; Keay and Spence, 2012). Continuing Professional Development (CPD) has been wheeled in and rolled-out in an attempt to solve these issues, however, the short term, 'one hit' nature of these courses has had little lasting legacy (Armour and Yelling, 2004; Harris et al. 2012; Ward, 2012; Jess, McEvilly and Carse, 2016).

Blair and Capel (2011) identify some of the challenges less pedagogically skilled and less experienced personnel, such as sport coaches, face when tasked with delivering PE. Consequently, there has been a recent growth in training courses offering specialisms in primary PE, a move which is facilitated in England by the DfE, through the ITE (National

College for Teaching and Leadership, 2015). A call for a rationalisation of primary teachers' expertise into particular subjects has gained favour (cf. Ardzejewska, McMaugh and Coutts, 2010). However, a focus on literacy and numeracy as a key priority for class teachers, with additional expertise being provided by additional specialists, appears to reinforce the priority and status of these subjects as part of the inner sanctum of primary curricula. Specialist PE teachers are not necessarily the panacea for primary PE that at first they may seem. According to Penney (2013) in the secondary sector, which has been inhabited by subject-specialists for a number of decades, breaking free from restrictive multi-sport curricula, pedagogy and assessment practices has yet to be achieved. Primary schools are not only distinct from secondary schools in relation to the age range for which they cater. **I**n a primary school it is the subject matter, which comes to the class, rather than the latter being split up and moved around to suit the subject matter, as is the practice in secondary schools. Coherence in relation to schooling and learning in primary schools thus grows from the developing expertise of class teachers as they design curricula and pedagogical experiences for this social-cultural context (cf. Petrie, 2010). In this way, having an overview of pupils' personal and collective growth is considered of more value than the segmentation of subject matter and teaching on the basis of expertise (Alexander, 2011; Callcott, Miller and Wilson-Gahan, 2012).

Delineating PE from this coherent context helps to reinforce the dualist ideas about the purposes of subjects in which serious academic study is delivered by the class teacher. In doing so, bodily concerns, including the motivation to participate, become the domain of the PE specialist. In secondary schools, increasing the educational status of PE has been sought through its 'academicization' into sports science, from which attainment is easily quantifiable (Kirk, 2010). The consequences of colonising primary PE with specialists remains to be seen,

however, such delineation is not without potential risks for a peripheral subject such as PE (Andrew and Richards, 2015). When viewed in a context where initial teacher training in the UK has been taken over by schools, there is little cause to believe that alternative ideas about PE will be championed by the institutions in which the memeplex of primary PE has a firm foothold.

The 'anyone can teach it' meme achieves self-justification by saving valuable teacher expertise for classroom-based subjects. By conflating subject knowledge and expertise with specialisms in sports, the meme becomes self-reinforcing and spreads by offering a pragmatic financial solution to address national workload agreements. Whether specialist primary PE teachers are able to break this cycle is yet to unfold. However, in secondary PE, delineation of expertise does not come without consequences for professionalisation and subject status (Andrew and Richards, 2015). In placing responsibility for teacher training into primary schools such a strategy may simply help to reproduce the culture of primary PE which already exists. This meme aside, evidence has historically suggested that both AOTTS and primary school teachers have struggled to offer rich learning experiences for pupils that operate beyond being 'busy, happy and good' (Morgan and Hansen 2008; Blair and Capel, 2007; 2008); this is the third meme for consideration.

Busy, happy and good

Although thirty years have passed since Placek (1983, p. 46) coined the phrase 'busy, happy and good', evidence suggests that it "is still very much alive" (Henninger and Coleman, 2008) where judgements about success and failure are related to student behaviour and not to

learning (Elliot et al., 2011; Morgan and Hansen, 2008; Ward, 2012). A decade of OFSTED reports in the UK has continued to highlight the relationship between weak subject knowledge of PE held by many primary teachers, the lack of assessment conducted in these lessons and the low expectations of PE lessons overall (Ní Chróinín and Cosgrave, 2013; OFSTED 2002; 2005; 2009; 2012; 2013). Akuffo and Hodge (2008) indicate that providing PE lessons where pupils are busy, appear happy and are being good, is something that teachers generally feel comfortable with because what they seem to want is to reach the end of the lesson incident free with the children having had some fun (Hastie and Pickwell, 1996; Tsangaridou, 2008; 2014).

Bulger and Housner (2009, p. 442) suggest that despite gains in teacher education and effective classroom practice, primary PE has not moved on from being located in 'Easy Street'. This is not to deny that there have been good intentions, rather, there remains an inevitable drift towards busy, happy and good lessons (Ciccomascolo and Sullivan, 2011). Such an approach is exacerbated by the belief that PE is couched in notions of 'fun' by teachers (Whitehead 2013; Ward, 2012), even when it attempts to prepare pupils for a healthy adult future (Gard, 2004). This appears most evident when the challenge faced by practitioners becomes too hard. For example, a focus on learning and progression would require the completion of detailed assessments (Drummond and Pill, 2011) or the planning of a games lesson where the activity is high and the learning is complex (Ward and Griggs, 2012). The production of a busy, happy and good environment is then further reinforced by the adoption of a didactic teaching style which persists as an effective means of 'managing' large classes of children even when teachers are aware it is not the most appropriate to develop a meaningful learning experience (Kirk, 2005). Such a context has proved fertile ground for sports coaches who ply their trade without being caught up in educational

expectations and quality issues; instead they can readily provide participatory physical activity experiences (Griggs, 2010; Blair and Capel, 2011). According to Smith and Leech (2010, p. 336) this is "reflective of the subtle shift from a focus on high quality PE to basic participation statistics" encouraged by the PESSYP strategy and School Games strategy (DfES/DCMS, 2003; DCSF, 2008; DCMS, 2015/16).

For some, the agenda appears not to focus upon providing a deep learning experience in PE lessons; rather, PE offers a break from intellectual pursuits for both pupils and teachers so that more serious academic subjects can be given greater attention (Kirk 2010; Elliot et al., 2011). Primary PE is thus still used as an "opportunity to get children outside and expend some energy" (Morgan and Hansen, 2008, p. 382). This has been exacerbated by a heightened awareness of a results and outcomes driven system, where measurable performance of areas such as Numeracy and Literacy has been accorded greater value (Ball, 2008; Griggs, 2009; Penney, 2013). The meme of 'busy, happy and good' draws from this subordination of PE to more academic educational activity, justifying itself by providing a breathing space within pressurised primary curricula. By constituting PE practice as fun, incident free, learning by doing, this meme is self-reinforced by providing space for reduced planning and preparation. Some of the heavy workload of teaching a wide number of subjects is thus alleviated. Such space has been capitalised upon by AOTTs who have been happy to exchange their time for PPA and PPfPE resources. This meme has effectively ignored national curricula, helping to perpetuate simple didactic approaches that privilege controlled participation. The latter has spread through national strategies which have focussed upon increasing participation, rather than deepening learning experiences. Increases in these statistics have been pursued without meaningful considerations of the spaces which continue to exist for PE lessons. This leads to the fourth meme of 'nowhere important'.

Nowhere important

The marginalisation of PE within school curricula is deeply rooted in philosophical thought in which the physical is considered subordinate to the mental (Nyberg and Larsson, 2014). Mind-body splits continue to pervade Western European approaches to education whereby the physical remains separate and inferior to cognitive activity (Stolz, 2014). The viewpoint that PE has been seen to be, and indeed remains of secondary importance (Griggs, 2007), makes it worthy of memetic consideration. Within primary schools, PE remains less important as a curriculum subject in comparison to key areas such as Numeracy and Literacy (Griggs, 2012a; Morgan and Hansen, 2008). Irrespective of any benefits that may be gained from engagement within PE, these are overridden by the pressures emanating from school inspections and the publication of SAT results which are presented as league tables in the national press (Rainer et al. 2010).

The direct effect of the diminished status given to PE is how this is operationalised in terms of time, facilities and budgets (Haydn-Davies, 2012; Pickup, 2012). For example, PE lessons occur in the afternoon in the majority of school timetables (Rainer, et al., 2010); this implies that learning in PE is less important (QCDA, 2002). Furthermore, the fact that PE has been timetabled does not mean that it will always occur due to facilities such as the school hall being appropriated for what would appear to be more important activities such as assemblies, tests, concerts and other special occasions (Griggs, 2006; Harris et al., 2012).

OFSTED (2005) highlighted that "the provision and maintenance of accommodation and facilities for PE are probably the most significant factors affecting standards of achievement in many primary schools" (p. 8). Comparable conclusions were also reached by Hardman and Marshall (2000) and Mandigo et al. (2004). Despite two significant back-to-back initiatives

within PE, little appears to have improved in this particular area. Pickup (2012) indicates that primary PE remains blighted by a paucity of facilities, which impacts upon the quality of teaching and learning that can be achieved. What has limited the development of facilities has been the persistent reluctance of head teachers to invest in this area (Rainer, et al., 2010), leaving many schools reliant on collecting supermarket vouchers to exchange for new equipment (Youngman, 2007). Funding streams such as those previously offered by PESSYP and now PPfPE may have helped to detract from the need for investment in facilities (Griggs, 2016). This ring-fenced money cannot be spent on capital assets such as facilities and OFSTED (2014) report it has been widely used to hire the expertise of sport coaches. Such funding provides resource-limited schools with a guilt-free conscience to invest in other curricula subjects upon which school performativity is measured. Despite claims of initiating a national revamp in primary school PE facilities through an £18 million pot of Sport England in 2014 grant funding (Sport England, 2014), the subject remains accommodated in spaces that look much the same as they did when many schools were first built.

The 'nowhere important' meme derives self-justification from the marginal status of PE within primary curricula and the significant investment required to change accommodation for the subject. The latter provides self-reinforcement, supported by the provision of additional, if meagre ring-fenced funding that other school subjects do not receive. In this way school the redirection of other school resources away from primary PE is legitimised. When aligned with the provision of free equipment through supermarket schemes, attention is easily diverted away from facilities which have not altered since many primary schools were built. The continued subordinate position of PE in relation to serious educational activity upon which school success depends, helps to spread the meme and increase its resistance to demands made on restricted school budgets.

Discussion and conclusions

In adopting Blackmore's (2010) caution, this paper has identified four interconnected memes that appear to work to reproduce PE in primary schools. Application of a memetic perspective helps to develop a telescopic view of the interconnected web of ideas at work; zooming in to see particular notions about primary PE at work but also zooming out to obtain a sense of perspective in relation to the key features of this landscape. Using examples drawn primarily from the UK, we argue that these memes have found homes within the environments which create the practices and subject content of PE; schools, primary teacher training courses, national curricula, development strategies and their associated funding streams. As a consequence, they have created an enduring landscape for PE which has been historically resilient and self-perpetuating.

If one meme were removed the others would continue to reproduce due to their deeply entrenched and distinct nature. In view of the memes revealed, this creates a precarious future for primary PE. For example, if qualified PE specialists were considered the only appropriate people to teach the subject, the strength of the other memes would mean that such a move has the potential to continue the direction of travel of the subject we have identified. The transfer of teacher training to schools in which these memes have a hold and the socialisation of trainees within a specialised sporting model of PE, have cumulative potential to strengthen the other memes; firstly, by reaffirming current practices through training teachers within the very ideas which define primary PE, secondly, through the funding and marketing of quality provision couched in the input of sport specialists and privileging of performativity, and thirdly, by fragmenting and isolating the subject from the social-cultural building blocks of primary education; education through multidisciplinary curricula taught by a class teacher.

Tinning (2012) argues that the dominance of the neo-liberal context of education provision will not allow the subject to shed its instrumental reputation as a means to realise government social policy. He foresees the institutional responsibility for building human capital as a non-negotiable obligation for PE, which if disregarded would spell a death sentence for the subject. Primary PE is left in a 'catch 22' position; if it does not prove its 'worth' in schools it will continue to be marginalised, however, the act of aligning itself with narrow sport and health discourses further marginalises the subject from a role in education. Not surprisingly, the discourses adopted by OFSTED reflect the human capital building structured in the NCPE which help to maintain the memes we have identified; physical activity, particularly if you are consider obese, and learning sports to compete. This human capital can be legitimately delivered by an unqualified teacher whose presence is determined by separate funding stream vulnerable to government cuts, but one which demands immediate results, rather than development of long term quality in pedagogy and subject accommodation.

These ideas about primary PE are located in dualistic understandings of knowledge and learning in education, in which activities of the mind are privileged and separated from the subordinate body. By turning the lens of a memetics onto primary PE a tipping point comes into view, where ideas about educational worth are increasingly side-lining the subject to pathogenic concerns for the body, such as motivating the mind and training the body to avoid weight gain (McCuaig and Quennerstedt, 2016). This direction of travel looks to continue if all four memes are not tackled. Such action would mean exploring alternative ideas about the possibilities of primary PE, and applying different theoretical understandings required to generate more plurality about what constitutes learning and knowledge in primary PE. Analysing what knowledge is produced within the subject is important to understand if

current approaches to its current 'worth' actually do what they claim. The use of these different theoretical positions and methodologies will need to go beyond snapshots of interviews with teachers or pupils who are old enough to articulate verbal responses (cf. Ward and Quennerstedt, 2014; 2015). It may also, for example, involve developing more nuanced understandings of children's 'logics of practice' in their choice and pursuit of meaning through physical activity (Everley and Macfadyen, 2015; Lee, Dunlap and Edwards, 2014)

In primary schools, 'cumulative' approaches to learning have been fostered through a tradition of multi-disciplinary generalist teaching (Penney, 2013). By not capitalising upon the pedagogical expertise of generalist class teachers, their in-depth knowledge of pupils and current curricula investigations allows the 'anyone can teach it' meme to thrive. Craft, et al. (2014), for example, demonstrate how 'cumulative' practices have been able to capitalise upon the greater flexibility afforded by the new NC orders in England. Using different positions in our understanding of what constitutes PE helps to open out notions of performativity and practices. Rather than 'being with' pupils and exploring their immediate experiences, such practices appear to result in adults 'leaping in' and 'leaping ahead' of their pupils (cf. Ward, 2014). The current NCPPE does not prescribe specific activities and uses the words 'competence', 'competition', 'sustained' and 'healthy' in a generalised way, which are open to interpretation (DfE, 2014, p. 198). For example, in relation to games activities, 'competence' may not relate solely to physical skills, knowing rules and being able to take part. It also involves understanding of the relations between the psychomotor, sociomotor and cognitive/reflective challenges that playing games demands. Pupils may also be encouraged to decide what competence means and learn how definitions can create and shift its meaning. Such an approach moves beyond notions of 'busy, happy and good' and by locating PE

within a coherent landscape of class teaching, places the subject as a possibility for stimulating written work, and calculation. It might also be positioned as a place to be creative, critical and take shared ownership. A memetic perspective thus provides an additional vantage point from which to evaluate the latest fashion or fad, permitting a critical perspective on the extent to which the latter strengthens the subject or helps to define a peripheral position for PE in primary school curricula.

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